## Message

From: Fennessy, Christopher [christopher.fennessy@Rocket.com]

**Sent**: 1/11/2021 4:33:21 PM

To: MacDonald, Alex@Waterboards [Alex.MacDonald@waterboards.ca.gov]; MacNicholl, Peter@DTSC

[Peter.MacNicholl@dtsc.ca.gov]; Swanson, Charles [Swanson.Charles@epa.gov]

Subject: RE: [EXTERNAL] Re: Area 40 Post-Remedy Monitoring Plan

Thanks Alex! We will continue to monitor 30481 similar to 30475 and sample when water is present. We are not proposing to sample 30487, however, our hope is that the plume will contract a bit after the removal of the source (former separation pond soils), so we should see concentrations in 30461 and 30466 begin to decline. If we do not see decreases at 30461 and 30466, we may propose to add 30487 back into the program to ensure VOCs are not migrating toward the anticipated residential area to the north.

## Christopher M. Fennessy, P.E. Aerojet Rocketdyne, Inc.

Senior Manager, Environmental Remediation PO Box 13222

Sacramento, California 95813-6000

Cell: 916-798-6103 Ph: 916-355-3341 Fax: 916-355-6145

Email: Christopher.Fennessy@Rocket.com

From: MacDonald, Alex@Waterboards <Alex.MacDonald@waterboards.ca.gov>

Sent: Friday, January 8, 2021 2:45 PM

**To:** Fennessy, Christopher <christopher.fennessy@Rocket.com>; MacNicholl, Peter@DTSC

<Peter.MacNicholl@dtsc.ca.gov>; Swanson, Charles <Swanson.Charles@epa.gov>

Subject: [EXTERNAL] Re: Area 40 Post-Remedy Monitoring Plan

Chris - I have taken a look at what you provided, and look at a more recent depiction of the groundwater contamination for both perchlorate and TCE from the updated HHRA for Area 40 and have the following:

- 1. Agree with the additions of groundwater monitor wells 30460, 30461, 30465, 30466, 30468, 30483, 31050, 31051 and 31055.
- 2. Monitor wells 30481 and 30478 had sufficient water for the 2017 map in the updated HHRA. TCE was found at 150  $\mu$ g/L and 120  $\mu$ g/L, respectively. Perchlorate concentrations were 960  $\mu$ g/L and 14,000  $\mu$ g/L, respectively. These two wells reflect impacts from the southern-most burn areas (40B) Wells 31051 and 30483 monitor impacts associated with northern burn areas (38B and 39B). From the HHRA figure it would appear that the two plumes may be semi-separate with a bedrock high between the two over a portion of their downgradient extents. One, or both of monitor wells 30481 and 30478 should be included in the monitoring program there may be times that there is insufficient water in these two wells for the collection of samples.
- 3. Based on future trends (increases at 30460 and/or 30487), it may desirable to add well 30486 back into the program to monitor TCE in groundwater between the existing plume and the future housing project.

Alex MacDonald Senior Engineer 916-464-4625

From: Fennessy, Christopher < <a href="mailto:christopher.fennessy@Rocket.com">christopher.fennessy@Rocket.com</a>

Sent: Thursday, January 7, 2021 2:34 PM

To: MacDonald, Alex@Waterboards < Alex.MacDonald@waterboards.ca.gov >; MacNicholl, Peter@DTSC

<Peter.MacNicholl@dtsc.ca.gov>; Swanson, Charles <Swanson.Charles@epa.gov>

Subject: Area 40 Post-Remedy Monitoring Plan

## **EXTERNAL:**

Hi Everyone – Between December 8 and December 23, Aerojet Rocketdyne, Inc. conducted its first complete post-remedy monitoring event at Area 40. This event included monitoring of ambient air, soil vapor wells, and groundwater wells. The attached figure shows the locations that were in the approved RDIP. The other figure included in this email shows the trichloroethylene plume as depicted in the HHERA along with the groundwater monitoring wells.

During the event, several groundwater wells (30464, 30475, 30480 and 30482) were dry and could not be sampled and some wells (30472, 30480 (yes, was also dry) 30481 and 30486) appear to provide little pertinent information on remedy effectiveness. These wells are shown in purple on the attached map. I propose that we eliminate these from future monitoring events and replace them with the following the wells highlighted in green on the attached map. I believe wells 31050, 30460, 30466, 30461, 30465, and 30468 will provide better information on the baseline condition and allow us to monitor whether the groundwater plume is contracting or not. Wells (31051, 30483 and 30468 (yes, it is mentioned above also)) are suggested to monitor the VOC plume emanating from the East Burn Area. The final well (31055) is proposed as a replacement for well 30482, which was dry during the sampling event.

This ultimately results in the addition of 2 monitoring points (remove 7 locations and add 9 locations). I do believe we should continue to check location 30475 to see if we can collect a sample. It is located just to the northeast of an area of high bedrock (see post remedy sampling map topography) and likely where the groundwater and VOC plume emanating from the East Burn Area (see the green hatched circle inside the East Burn Area on the post remedy sampling map – this is where well 31051 is located) is forced toward the north around this high bedrock.

If you approve, we will immediately schedule sampling so it is temporal with the December 21-23 groundwater sampling event.

Thanks, Chris

Christopher M. Fennessy, P.E. Aerojet Rocketdyne, Inc.

Senior Manager, Environmental Remediation PO Box 13222

Sacramento, California 95813-6000

Cell: 916-798-6103 Ph: 916-355-3341 Fax: 916-355-6145

Email: Christopher.Fennessy@Rocket.com